Journal of Engineering Materials and Technology

Author Index

All authors of papers published in this volume are listed alphabetically. Full titles are included in each first author's entry. Letters in parentheses follow some of the page numbers: TB indicates Technical Brief, D indicates Discussion, E indicates Errata, and BR indicates Book Review.

Abdul-Latif, A. — (see Chadli, M.) **127,** 214–221
Abouelwafa, M. N. — (see Nasr, M.) **127,** 130–135
_____ (see Nasr, Mohamed N. A.) **127,** 301–309
Abu-Farha, Fadi K., and Khraisheh, Marwan K. — Modeling of Anisotropic Deformation in Superplastic Sheet Metal Stretching. **127,** 159–164
Akpan, E. — (see McBagonluri, F.) **127,** 46–57
Allameh, S. M., Mercer, C., Popoola, D., and Soboyejo, W. O. — Microstructural Characterization of Ultrasonically Welded Aluminum. **127,** 65–74
An, Youngho — (see Kim, Beomjoo) **127,** 204–213

Bai, Yilong — (see Hu, Ming) **127,** 444–450
Baik, Min-Kyung — (see Kim, Sung-Hoon) **127,** 265–272
Baldi, Antonio — A New Analytical Approach for Hole Drilling Residual Stress Analysis by Full Field Method. **127,** 165–169
Bande, G., and Nemes, J. A. — A New Approach for Single Crystal Materials Analysis: Theory and Application to Initial Yielding. **127,** 119–129
Barbu, Adrian — (see Ciobanu, Cristian V.) **127,** 462–467
Barkey, M. E. — (see Wang, G.) **127,** 310–317
Beda, T. — Optimizing the Ogden Strain Energy Expression of Rubber Materials. **127,** 351–353(TB)
Bernstein, Noam — (see Gall, Ken) **127,** 417–422
Briggs, Ryan M. — (see Ciobanu, Cristian V.) **127,** 462–467
Bruzzi, M. S., and McHugh, P. E. — Micromechanical Modeling of the Static Loading of an Al 359-SiC MMC. **127,** 106–118

Calcaterra, Jeffrey — (see George, Tommy J.) **127,** 58–64
Capolungo, L., Cherkaoui, M., and Qu, J. — A Self-Consistent Model for the Inelastic Deformation of Nanocrystalline Materials. **127,** 400–407
Chadli, M., and Abdul-Latif, A. — Mesodamage Evolution in Polycrystals. **127,** 214–221
Chan, K. S., Feiger, J., Lee, Y.-D., John, R., and Hudak, S. J., Jr. — Fatigue Crack Growth Thresholds of Deflected Mixed-Mode Cracks in PWA1484. **127,** 2–7
Chan, L. C., Chan, S. M., Cheng, C. H., and Lee, T. C. — Formability and Weld Zone Analysis of Tailor-Welded Blanks for Various Thickness Ratios. **127,** 179–185
Chan, S. M. — (see Chan, L. C.) **127,** 179–185
Chandra, N. — (see Namilae, S.) **127,** 222–232
Chandrawat, H. N. — (see Gupta, V. K.) **127,** 97–105
Chen, Weinong — (see Cheng, Ming) **127,** 197–203
Chen, Xi — (see Gan, Yong) **127,** 451–456
Cheng, C. H. — (see Chan, L. C.) **127,** 179–185
Cheng, Ming, Chen, Weinong, and Weerasooriya, Tusit — Mechanical Properties of Kevlar® KM2 Single Fiber. **127,** 197–203
Cherkaoui, M. — (see Capolungo, L.) **127,** 400–407
Chow, C. L., Jie, M., and Wu, X. — Localized Necking Criterion for Strain-Softening Materials. **127,** 273–278
Ciobanu, Cristian V., Barbu, Adrian, and Briggs, Ryan M. — Interactions of Carbon Atoms and Dimer Vacancies on the Si(001) Surface. **127,** 462–467
Cross, Charles J. — (see George, Tommy J.) **127,** 58–64
Cuitino, A. M. — (see Zhou, J.) **127,** 40–45
Curtin, William A. — (see Shiari, Behrouz) **127,** 358–368

Dellan, N. — (see Peralta, P.) **127,** 23–32
Diao, Jiankuai — (see Gall, Ken) **127,** 417–422
Dickerson, R. — (see Peralta, P.) **127,** 23–32
Dunn, Martin L. — (see Gall, Ken) **127,** 417–422

Ellis, M. — (see Tuck, K.) **127,** 90–96

Fang, N. — A New Quantitative Sensitivity Analysis of the Flow Stress of 18 Engineering Materials in Machining. **127,** 192–196
Feiger, J. — (see Chan, K. S.) **127,** 2–7
Fielden, D. E. — (see Yang, B.) **127,** 75–82
Freund, J. B. — (see Kalyanasundaram, N.) **127,** 457–461

Gall, Ken, Diao, Jiankuai, Dunn, Martin L., Haftel, Michael, Bernstein, Noam, and Mehl, Michael J. — Tetragonal Phase Transformation in Gold Nanowires. **127,** 417–422
Gan, Yong, Lee, Dongyun, Chen, Xi, and Kysar, Jeffrey W. — Structure and Properties of Electrocodeposited Cu–Al_2O_3 Nanocomposite Thin Films. **127,** 451–456
Gao, Z. — (see Zhou, J.) **127,** 40–45
Gau, Jenn-Terng, and Kinzel, Gary L. — A New Model for Springback Prediction for Aluminum Sheet Forming. **127,** 279–288
Geisberger, A. — (see Tuck, K.) **127,** 90–96
George, Tommy J., Shen, M.-H. Herman, Scott-Emuakpor, Onome, Nicholas, Theodore, Cross, Charles J., and Calcaterra, Jeffrey — Goodman Diagram Via Vibration-Based Fatigue Testing. **127,** 58–64
Golovashchenko, S. — (see Imbert, J. M.) **127,** 145–153
Gomaa, A. — (see Nasr, M.) **127,** 130–135
_____ (see Nasr, Mohamed N. A.) **127,** 301–309
Gordon, A. P. — (see Shenoy, M. M.) **127,** 325–336
Guo, Wei-Guo — (see Nemat-Nasser, Sia) **127,** 83–89
Gupta, Manoj — (see Srikanth, Narasimalu) **127,** 289–294
Gupta, V. K., Singh, S. B., Chandrawat, H. N., and Ray, S. — Modeling of Creep Behavior of a Rotating Disc in the Presence of Both Composition and Thermal Gradients. **127,** 97–105

Haftel, Michael — (see Gall, Ken) **127,** 417–422
Hall, Richard B. — A Thermodynamic Framework for Viscoplasticity Based on Overstress (VBO). **127,** 369–373
Hamdy, A. — (see Nasr, M.) **127,** 130–135
_____ (see Nasr, Mohamed N. A.) **127,** 301–309

Hashish, M. — (see Kunaporn, S.) **127,** 186–191
Horiguchi, Katsumi — (see Shindo, Yasuhide) **127,** 468–475
Hu, Ming, Wang, Haiying, Xia, Mengfen, Ke, Fujiu, and Bai, Yilong — Nonlocality Effect in Atomic Force Microscopy Measurement and Its Reduction by an Approaching Method. **127,** 444–450
Hua, Jiang, and Shivpuri, Rajiv — A Cobalt Diffusion Based Model for Predicting Crater Wear of Carbide Tools in Machining Titanium Alloys. **127,** 136–144
Huang, J. G. — (see Yang, B.) **127,** 75–82
Huang, J. Y. — (see Yang, B.) **127,** 75–82
Huang, M., Niu, X., Shrotriya, P., Thompson, V., Rekow, D., and Soboyejo, W. O. — Contact Damage of Dental Multilayers: Viscous Deformation and Fatigue Mechanisms. **127,** 33–39
Huang, Y. — (see Jiang, H.) **127,** 408–416
_____ (see Yang, Wei) **127,** 383–392
_____ (see Yang, Wei) **127,** 393–399
Hudak, S. J., Jr. — (see Chan, K. S.) **127,** 2–7
Hwang, K. C. — (see Jiang, H.) **127,** 408–416

Imbert, J. M., Winkler, S. L., Worswick, M. J., Oliveira, D. A., and Golovashchenko, S. — The Effect of Tool–Sheet Interaction on Damage Evolution in Electromagnetic Forming of Aluminum Alloy Sheet. **127,** 145–153
Isaacs, Jon B. — (see Nemat-Nasser, Sia) **127,** 83–89

Jacob, Karl I. — (see Spearot, Douglas E.) **127,** 374–382
Jameel, M. A. — (see Peralta, P.) **127,** 23–32
Jeon, Eun-chae — (see Kim, Sung-Hoon) **127,** 154–158
Jiang, H., Huang, Y., and Hwang, K. C. — A Finite-Temperature Continuum Theory Based on Interatomic Potentials. **127,** 408–416
Jie, M. — (see Chow, C. L.) **127,** 273–278
John, R. — (see Chan, K. S.) **127,** 2–7
Johnson, H. T. — (see Kalyanasundaram, N.) **127,** 457–461
Jordan, William — Using Embossing to Create a Fiber Reinforced Honeycomb Composite. **127,** 257–262
Jungen, A. — (see Tuck, K.) **127,** 90–96

Kalyanasundaram, N., Freund, J. B., and Johnson, H. T. — Atomistic Determination of Continuum Mechanical Properties of Ion-Bombarded Silicon. **127,** 457–461
Ke, Fujiu — (see Hu, Ming) **127,** 444–450
Khaleel, Mohammad A. — (see Nguyen, Ba Nghiep) **127,** 337–350
Khraisheh, Marwan K. — (see Abu-Farha, Fadi K.) **127,** 159–164
Kim, Beomjoo, Uhm, Sangho, Lee, Changhee, Lee, Jongbong, and An, Youngho — Effects of Inclusions and Microstructures on Impact Energy of High Heat-Input Submerged-Arc-Weld Metals. **127,** 204–213
Kim, Jeongguk, and Liaw, Peter K. — Characterization of Fatigue Damage Modes in Nicalon/Calcium Aluminosilicate Composites. **127,** 8–15
Kim, Sung-Hoon, Baik, Min-Kyung, and Kwon, Dongil — Determination of Precise Indentation Flow Properties of Metallic Materials Through Analyzing Contact Characteristics Beneath Indenter. **127,** 265–272
_____, **Jeon, Eun-chae, and Kwon, Dongil** — Determining Brinell Hardness From Analysis of Indentation Load-Depth Curve Without Optical Measurement. **127,** 154–158
Kinzel, Gary L. — (see Gau, Jenn-Terng) **127,** 279–288
Komandur, K. — (see Peralta, P.) **127,** 23–32
Komazaki, Shin-ichi, Shoji, Tetsuo, and Takamura, Kazumune — Evaluation of Thermal Aging Embrittlement in Directionally Solidified Ni-Base Superalloy by Small Punch Test. **127,** 476–482
Kumagai, Susumu — (see Shindo, Yasuhide) **127,** 468–475
Kunaporn, S., Ramulu, M., and Hashish, M. — Mathematical Modeling of Ultra-High-Pressure Waterjet Peening. **127,** 186–191
Kuo, R. C. — (see Yang, B.) **127,** 75–82
Kwon, Dongil — (see Kim, Sung-Hoon) **127,** 154–158
_____ (see Kim, Sung-Hoon) **127,** 265–272
Kysar, Jeffrey W. — (see Gan, Yong) **127,** 451–456

Lee, Changhee — (see Kim, Beomjoo) **127,** 204–213
Lee, Dongyun — (see Gan, Yong) **127,** 451–456
Lee, Jongbong — (see Kim, Beomjoo) **127,** 204–213
Lee, T. C. — (see Chan, L. C.) **127,** 179–185
Lee, Y.-D. — (see Chan, K. S.) **127,** 2–7
Li, Y. P. — (see Zhou, L. Q.) **127,** 233–243
Liang, Wuwei, and Zhou, Min — Pseudoelasticity of Single Crystalline Cu Nanowires Through Reversible Lattice Reorientations. **127,** 423–433
Liaw, P. K. — (see Yang, B.) **127,** 75–82
Liaw, Peter K. — (see Kim, Jeongguk) **127,** 8–15
Liew, K. M. — (see Meguid, S. A.) **127,** 170–178
Liu, H. T., Sun, L. Z., and Wu, H. C. — Monte Carlo Simulation of Particle-Cracking Damage Evolution in Metal Matrix Composites. **127,** 318–324
Lou, J., Shrotriya, P., and Soboyejo, W. O. — A Cyclic Microbend Study on LIGA Ni Microelectromechanical Systems Thin Films. **127,** 16–22

McBagonluri, F., Akpan, E., Mercer, C., Shen, W., and Soboyejo, W. O. — An Investigation of the Effects of Microstructure on Fatigue Crack Growth in Ti-6242. **127,** 46–57
McDowell, D. L. — (see Shenoy, M. M.) **127,** 325–336
McDowell, David L. — (see Spearot, Douglas E.) **127,** 374–382
McHugh, P. E. — (see Bruzzi, M. S.) **127,** 106–118
Meguid, S. A., Shagal, G., Stranart, J. C., Liew, K. M., and Ong, L. S. — Relaxation of Peening Residual Stresses Due to Cyclic Thermo-Mechanical Overload. **127,** 170–178
Mehl, Michael J. — (see Gall, Ken) **127,** 417–422
Mercer, C. — (see Allameh, S. M.) **127,** 65–74
_____ (see McBagonluri, F.) **127,** 46–57
Miller, Ronald E. — (see Shiari, Behrouz) **127,** 358–368
Morsi, E. — (see Nasr, M.) **127,** 130–135
_____ (see Nasr, Mohamed N. A.) **127,** 301–309

Namilae, S., and Chandra, N. — Multiscale Model to Study the Effect of Interfaces in Carbon Nanotube-Based Composites. **127,** 222–232
Narayanasamy, R. — (see Selvakumar, N.) **127,** 251–256
Nasr, M., Abouelwafa, M. N., Gomaa, A., Hamdy, A., and Morsi, E. — A New Failure Criterion for Woven-Roving Fibrous Composites Subjected to Tension-Compression Local Plane Stresses With Different Stress Ratios. **127,** 130–135
Nasr, Mohamed N. A., Abouelwafa, M. N., Gomaa, A., Hamdy, A., and Morsi, E. — The Effect of Mean Stress on the Fatigue Behavior of Woven-Roving Glass Fiber-Reinforced Polyester Subjected to Torsional Moments. **127,** 301–309
Nemat-Nasser, Sia, Yong Choi, Jeom, Guo, Wei-Guo, Isaacs, Jon B., and Taya, Minoru — High Strain-Rate, Small Strain Response of a NiTi Shape-Memory Alloy. **127,** 83–89
Nemes, J. A. — (see Bande, G.) **127,** 119–129
Neu, R. W. — (see Shenoy, M. M.) **127,** 325–336
Nguyen, Ba Nghiep, Tucker, Brian J., and Khaleel, Mohammad A. — A Mechanistic Approach to Matrix Cracking Coupled With Fiber–Matrix Debonding in Short-Fiber Composites. **127,** 337–350
Nicholas, Theodore — (see George, Tommy J.) **127,** 58–64

Nishimura, Toshihiko — Experimental and Numerical Evaluation of Crack Arresting Capability Due to a Dimple. **127,** 244–250
Niu, X. — (see Huang, M.) **127,** 33–39

Oliveira, D. A. — (see Imbert, J. M.) **127,** 145–153
Ong, L. S. — (see Meguid, S. A.) **127,** 170–178

Peralta, P., Dickerson, R., Dellan, N., Komandur, K., and Jameel, M. A. — Effects of Local Grain Orientation on Fatigue Crack Growth in Multicrystalline fcc Metallic Materials. **127,** 23–32
Plimpton, Steven J. — (see Spearot, Douglas E.) **127,** 374–382
Popoola, D. — (see Allameh, S. M.) **127,** 65–74

Qu, J. — (see Capolungo, L.) **127,** 400–407

Ramasubramaniam, A., and Shenoy, V. B. — Growth and Ordering of Si-Ge Quantum Dots on Strain Patterned Substrates. **127,** 434–443
Ramulu, M. — (see Kunaporn, S.) **127,** 186–191
Ray, S. — (see Gupta, V. K.) **127,** 97–105
Rekow, D. — (see Huang, M.) **127,** 33–39

Scott-Emuakpor, Onome — (see George, Tommy J.) **127,** 58–64
Selvakumar, N., and Narayanasamy, R. — Deformation Behavior of Cold Upset Forming of Sintered Al-Fe Composite Preforms. **127,** 251–256
Shagal, G. — (see Meguid, S. A.) **127,** 170–178
Shen, M.-H. Herman — (see George, Tommy J.) **127,** 58–64
Shen, W. — (see McBagonluri, F.) **127,** 46–57
Shenoy, M. M., Gordon, A. P., McDowell, D. L., and Neu, R. W. — Thermomechanical Fatigue Behavior of a Directionally Solidified Ni-Base Superalloy. **127,** 325–336
Shenoy, V. B. — (see Ramasubramaniam, A.) **127,** 434–443
Shiari, Behrouz, Miller, Ronald E., and Curtin, William A. — Coupled Atomistic/Discrete Dislocation Simulations of Nanoindentation at Finite Temperature. **127,** 358–368
Shindo, Yasuhide, Shinohe, Daiki, Kumagai, Susumu, and Horiguchi, Katsumi — Analysis and Testing of Mixed-Mode Interlaminar Fracture Behavior of Glass-Cloth/Epoxy Laminates at Cryogenic Temperatures. **127,** 468–475
Shinohe, Daiki — (see Shindo, Yasuhide) **127,** 468–475
Shivpuri, Rajiv — (see Hua, Jiang) **127,** 136–144
Shoji, Tetsuo — (see Komazaki, Shin-ichi) **127,** 476–482
Shrotriya, P. — (see Huang, M.) **127,** 33–39
_____ (see Lou, J.) **127,** 16–22
Singh, S. B. — (see Gupta, V. K.) **127,** 97–105
Skidmore, G. — (see Tuck, K.) **127,** 90–96
Soboyejo, Alfred, and Soboyejo, Wolé — Special Section on Fatigue of Advanced Materials. **127,** 1
Soboyejo, W. O. — (see Allameh, S. M.) **127,** 65–74
_____ (see Huang, M.) **127,** 33–39
_____ (see Lou, J.) **127,** 16–22
_____ (see McBagonluri, F.) **127,** 46–57
_____ (see Zhou, J.) **127,** 40–45
Soboyejo, Wolé — (see Soboyejo, Alfred) **127,** 1
Spearot, Douglas E., Jacob, Karl I., McDowell, David L., and Plimpton, Steven J. — Effect of deformation path sequence on the behavior of nanoscale copper bicrystal interfaces. **127,** 374–382
Srikanth, Narasimalu, and Gupta, Manoj — Enhancing Damping of Aluminium Using SiC and/or Ge. **127,** 289–294
Stranart, J. C. — (see Meguid, S. A.) **127,** 170–178
Sun, L. Z. — (see Liu, H. T.) **127,** 318–324

Takamura, Kazumune — (see Komazaki, Shin-ichi) **127,** 476–482
Taya, Minoru — (see Nemat-Nasser, Sia) **127,** 83–89
Thompson, V. — (see Huang, M.) **127,** 33–39
Tuck, K., Jungen, A., Geisberger, A., Ellis, M., and Skidmore, G. — A Study of Creep in Polysilicon MEMS Devices. **127,** 90–96
Tucker, Brian J. — (see Nguyen, Ba Nghiep) **127,** 337–350

Uhm, Sangho — (see Kim, Beomjoo) **127,** 204–213

Wang, G., and Barkey, M. E. — Fatigue Crack Identification in Tensile-Shear Spot Welded Joints by Dynamic Response Characteristics. **127,** 310–317
Wang, Haiying — (see Hu, Ming) **127,** 444–450
Wang, Hongtao — (see Yang, Wei) **127,** 383–392
_____ (see Yang, Wei) **127,** 393–399
Weerasooriya, Tusit — (see Cheng, Ming) **127,** 197–203
Winkler, S. L. — (see Imbert, J. M.) **127,** 145–153
Worswick, M. J. — (see Imbert, J. M.) **127,** 145–153
Wu, H. C. — (see Liu, H. T.) **127,** 318–324
Wu, X. — (see Chow, C. L.) **127,** 273–278
Wusatowska-Sarnek, Agnieszka M. — The New Grain Formation During Warm and Hot Deformation of Copper. **127,** 295–300

Xia, Mengfen — (see Hu, Ming) **127,** 444–450

Yang, B., Liaw, P. K., Huang, J. Y., Kuo, R. C., Huang, J. G., and Fielden, D. E. — Stress Analyses and Geometry Effects During Cyclic Loading Using Thermography. **127,** 75–82
Yang, Wei, Wang, Hongtao, and Huang, Y. — Abnormal Tribological Behavior of Multiwalled Nanotube Rafts Part I: Aligned Rafts. **127,** 383–392
_____, **Wang, Hongtao, and Huang, Y.** — Abnormal Tribological Behavior of Multiwalled Nanotube Rafts Part II: Inclined Rafts. **127,** 393–399
Yong Choi, Jeom — (see Nemat-Nasser, Sia) **127,** 83–89

Zhou, J., Gao, Z., Cuitino, A. M., and Soboyejo, W. O. — Fatigue of As-Fabricated Open Cell Aluminum Foams. **127,** 40–45
Zhou, L. Q., Li, Y. P., and Zhou, Y. C. — Numerical Analysis of Electrodeposited Nickel Coating in Multistage Drawing Processes. **127,** 233–243
Zhou, Min — Special Issue on Nanomaterials and Nanomechanics. **127,** 357
_____ (see Liang, Wuwei) **127,** 423–433
Zhou, Y. C. — (see Zhou, L. Q.) **127,** 233–243